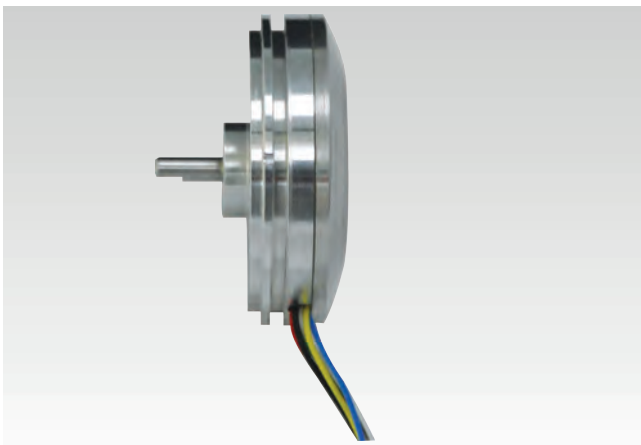


Absolute encoders - SSI



Shaft with synchro flange
Optical single turn 21 bit encoder

FNC AS37 Series



Features

- Absolute encoder with SSI/BISS interface
- Optical sensing
- Resolution: up to 21 bit
- Synchro flange
- Optional System monitoring with error/warning messaging
- Optional Prereset and direction input
- Small form factor with sense position data

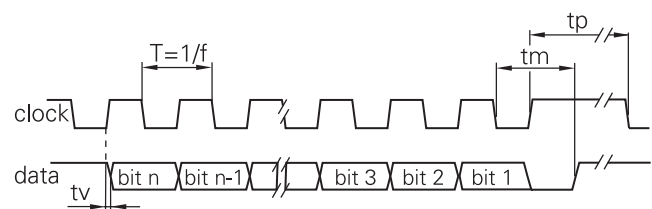
Technical data - electrical ratings

Voltage supply	4.75V to 5.25V DC
Protection:	Reverse & over voltage Output short circuit
Consumption w/o load	≤100 mA
Interface	SSI or BiSS
Resolution (steps/turn)	up to 21 bit
Absolute accuracy	≤±0.01°
Sensor life time	≥ 100.000 hours
Code	Gray or binary
Inputs	SSI differential clock, RS485 Direction (opt.) Electronic zero setting (opt.)
Output frequency	up to 2 MHz (SSI) up to 10MHz (BiSS)
Output circuit	SSI differential data, RS485
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-4
Approval	CE

Technical data - mechanical design

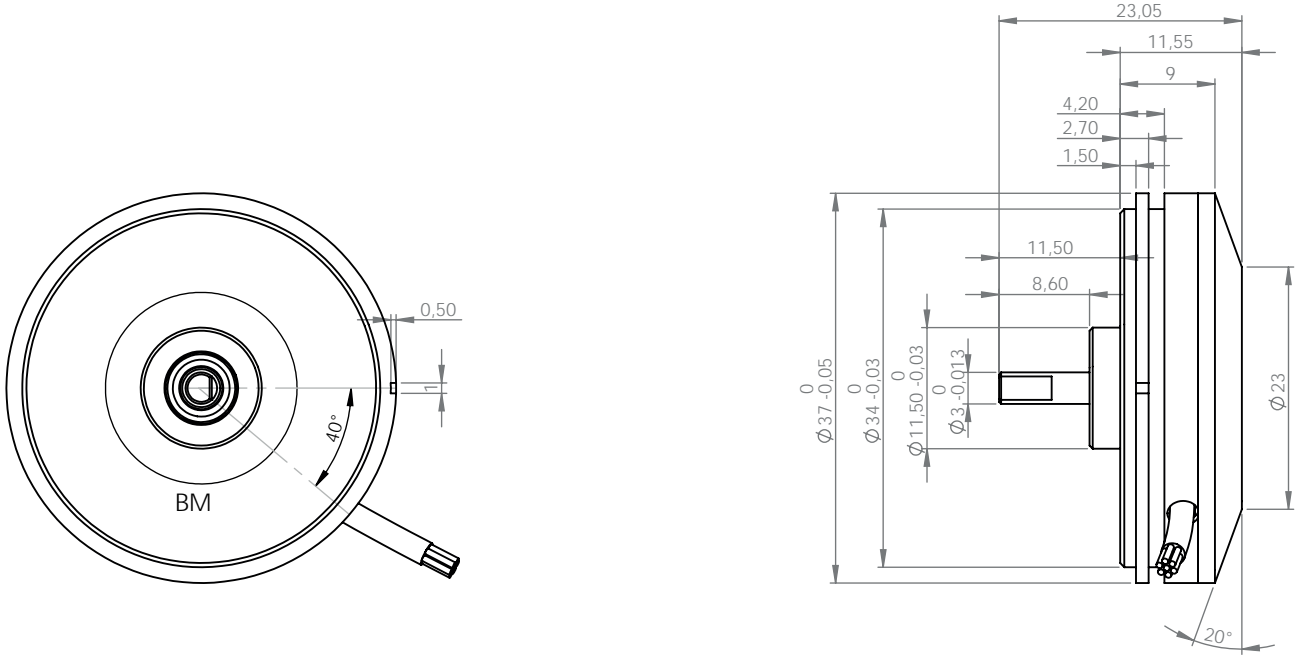
Dimensions (flange)	ø37 mm
Shaft loading	≤3 N axial ≤3 N radial
Protection DIN EN 60529	IP 50
Operating speed	≤1000 rpm
Starting torque	≤0.001 Nm
Materials	Housing, Flange : Aluminium Shaft :Stainless steel
Shaft diameter:	3, 4, 5 mm (other diameters on request)
Bearings lifetime:	2x10 ⁹ rev. at 100% of full rated shaft load (minimum)
Operating temperature	-40 to +85 °C
Weight approx.	21 g

Pulse Diagram



Clock frequency, f	up to 2 MHz for SSI up to 10MHz for BiSS
Code	Binary or gray
tm	≥ 25 μs
tp	tm + ≥ 10 μs

Mechanical Dimensions



Cable Wiring / Connector

Function	Connector	Color	Renk
+VB		Red	Kırmızı
GND		Black	Siyah
CLK+		Yellow	Sarı
CLK-		White	Beyaz
DATA+		Blue	Mavi
DATA-		Green	Yeşil

NOTE : Preset and Direction inputs are optional

Encoder Part Number

FNC **A** **S** **O** **37** **S** **4** **S12** **5V** **B** - **R02**

